Coated Metal Reinforcement Element and Coating Materials

Abstract of the Disclosure:

A coated metal reinforcement element for polymeric or elastomeric materials comprises a coating of: a polymer or prepolymer compatible with and co-polymerizable, co-vulcanizable or cross-linkable with said polymeric or elastomeric material to be reinforced, and bearing functional groups; either covalently bonding to the metal surface of said reinforcement element; or forming covalent bonds with the outward directed first functional groups of a mono-or multimolecular layer of a bifunctional adhesion promotor intercalated between said metal by its second functional groups. A method for the coating includes a one step and a two step procedure.